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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,765

03/07/2005

Odile Letourneur

122802

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OLIFF & BERRIDGE, PLC

P.O. BOX 320850

ALEXANDRIA, VA 22320-4850

EXAMINER

PENG, BO

ART UNIT

PAPER NUMBER

1648

MAIL DATE

DELIVERY MODE

04/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,765	<b>Applicant(s)</b> LETOURNEUR, ODILE	
	<b>Examiner</b> BO PENG	<b>Art Unit</b> 1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/26/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office Action is in response to the amendment filed on December 26, 2007. New Claims 15-17 are added. Accordingly, Claims 1-13 and 15-17 are pending and considered in this Office action. Applicant provisionally elected SEQ ID NO: 51 as a species of a recombinant DNA.

#### ***Specification***

2. **(Prior objection- withdrawn)** The objection to the specification **is withdrawn** in view of the amendment to the specification. Applicant has corrected trademarks and sequence identifiers. The objection, therefore, is withdrawn.

#### ***Claim objections***

3. **(Prior objection-withdrawn)** The objection to the claims is withdrawn in view of the amendment to the claims. Applicant has correct sequence identifiers in the claims. The objection, therefore, is withdrawn.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **(Prior rejection-maintained-extended)** The rejection of Claims 1-13 under 35

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U.S.C. 103(a) as being unpatentable over Gallarda J. *et al.* (WO 95/33206, cited in IDS) and Han (1998, Biochemistry and Mol. Biology International, 46(3):607-617, cited in IDS), both in view of inNovations (Newsletters of Novagen, Inc. No.11 (June 2000): p. 1, 12 and 13), is maintained, and now extended to new Claims 15-17, for the reasons of record.

In response to Applicant's argument:

6. Applicant argues that by this Amendment, Claim 1 is amended to require: "...at least two first nucleotide fragments each independently encoding an epitope region of a member selected from the group consisting of HIV-1 virus group M, HIV-1 virus group O, and HIV-2 virus, wherein at least one first nucleotide fragment encodes an epitope region of HIV-1 virus group M, and at least one first nucleotide fragment encodes an epitope region of HIV-1 virus group O..." (emphasis added by Applicant). Applicant argues that the cited Gallarda, Han, and inNovations, references considered either separately or in combination, fail to teach or suggest a recombinant DNA according to Claim 1.

7. Applicant's argument is considered but is not found persuasive. Based on the specification, the elected recombinant DNA SEQ ID NO: 51 encodes HIV epitope regions SEQ ID NO: 28 (HIV-1 group M), SEQ ID NO: 32 (HIV-1 Group O) and SEQ ID NO: 30 (HIV-2) (See Specification Para [0097] to [0099] and [0100] to [0105]). Gallarda specifically teaches use of HIV immunodominant epitopes to simultaneously detect the presence of antibodies of HIV-1 Group M, Group O and/or HIV-2 in a test sample, wherein the HIV immunodominant epitopes used by Gallarda are 100% identical to the instant SEQ ID NOs: 28, 32 and 30 encoded by the claimed recombinant DNA

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SEQ ID NO:51 (See Gallarda, Claims 5, 9 and 10). Thus, Gallarda teaches all the epitopes of HIV-1 Groups M and O, and HIV-2 encoded by the claimed recombinant DNA SEQ ID NO: 51.

8. Gallarda also teaches a method of making HIV peptides (epitopes) by using recombinant DNA cloning technique, or peptide synthesis (see p. 42-49). Thus, although Gallarda does not explicitly teach the claimed recombinant DNA SEQ ID NO:51, which encodes the epitopes of HIV-1 Groups M, O and HIV-2, one of ordinary skill in the art can make a recombinant DNA encoding HIV epitopes, such as the instant recombinant DNA SEQ ID NO:51, using the method taught by Gallarda.

9. Further, as shown by Han, it is within the ordinary skill in the art to construct a recombinant DNA encoding a chimeric protein of HIV-1 and HIV-2 epitopes (p. 607-614). The claimed recombinant DNA for making epitopes of HIV-1 Groups M and O, and HIV-2, such as the instant SEQ ID No: 51, can be constructed using standard molecular biology techniques as illustrated by Gallarda and Han. Therefore, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art. The rejection is maintained.

#### ***Remarks***

10. No claims are allowed. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bo Peng, Ph.D. whose telephone number is 571-272-5542. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell, Ph.D. can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Bo Peng/  
Patent Examiner  
March 27, 2008

/Bruce Campell/

Supervisory Patent Examiner, Art Unit 1648